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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/813,167	03/31/2004	Etsuko Kadowaki	Q79683	4455

7590 01/07/2005

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EXAMINER

HAILEY, PATRICIA L

ART UNIT	PAPER NUMBER
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1755

DATE MAILED: 01/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/813,167	KADOWAKI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Patricia L. Hailey	1755	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 June 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 09/958,271.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. _____  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>3/31 and 6/16/04</u> .  | 6) <input type="checkbox"/> Other: _____                                    |

***Priority***

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copy has been filed in parent Application No. 09/958,271, filed on October 9, 2001 (now abandoned).

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. **Claims 1-7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

The claims are indefinite because, based on their wording, it cannot be determined whether Applicants are claiming (a) a process for producing a catalyst, or (b) a process for producing a lower aliphatic carboxylic acid ester, in which the aforementioned catalyst is "used". For example, claim 1 recites claim limitations such as "said catalyst being used in reacting a lower olefin...to produce a lower aliphatic carboxylic acid ester". Further, the phrase "which process comprises..." can be construed to relate to either (a) or (b). However, the Examiner will interpret the claims as defining a process for producing a catalyst.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

5. **Claims 1-7 are rejected under 35 U.S.C. 102(e) as being anticipated by Higashi et al. (U. S. Patent No. 6,624,325).**

Higashi et al. disclose a process for producing a catalyst containing at least one compound selected from heteropolyacids and salts thereof, said compound held on a carrier. Further, the catalyst is used in a process for producing a lower fatty acid ester through esterification of a lower aliphatic carboxylic acid with a lower olefin. See col. 2, lines 42-51 of Higashi et al.

Examples of the heteropolyacids include silicotungstic acid (tungstosilicic acid), phosphotungstic acid (tungstophosphoric acid), phosphomolybdic acid

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(molybdophosphoric acid), silicomolybdic acid (molybdosilicic acid), and phosphovanadomolybdic acid (vanadomolybdophosphoric acid). See col. 3, lines 31-40 of Higashi et al.

The catalyst is produced by obtaining a solution or suspension of heteropolyacid or salt thereof, and causing the solution or suspension to be held on the carrier, via techniques such as impregnating the carrier with said solution or suspension, or by shaking the carrier in a heteropolyacid-containing solution or suspension in an excess amount to thereby impregnate the carrier with the component and removing the acid through filtration. See col. 6. line 1 to col. 7, line 49 of Higashi et al. This disclosure is considered to read upon Applicants' claimed "first step".

In the process for producing the lower fatty acid ester, the aforementioned catalyst is employed in a gas phase reaction via contact with lower olefins, lower aliphatic carboxylic acids (e.g., acetic acid; see col. 7, lines 58-63 of Higashi et al.), and water, under conditions of: temperature ranging from 120°C to 250°C, pressure ranging from ordinary pressure to 2 MPa, and a space velocity (GHSV) of 100/hr to 7000/hr. See col. 7, line 50 to col. 8, line 24 of Higashi et al. Although this disclosure by Higashi et al. describes a process for producing a lower fatty acid ester, this process encompasses Applicants' claimed "second step", in view of Applicants' claims in their present form.

The Examples of Higashi et al. depict preparations of Patentees' catalysts, as well as embodiments in which said catalysts are charged in a reaction tube and brought into contact with a mixed gas containing ethylene, acetic acid, steam, and nitrogen (e.g., Example 1).

In view of these teachings, Higashi et al. anticipate Applicants' claims 1-7.

### *Conclusion*


6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Patricia L. Hailey whose telephone number is (571) 272-1369. The examiner can normally be reached on Mondays-Thursdays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark L. Bell can be reached on (571) 272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Patricia L. Hailey/plh  
Examiner, Art Unit 1755  
January 5, 2005

  
DAVID SAMPLE  
PRIMARY EXAMINER